SOFAR SOLAR single phase inverter

SOFAR SOLAR • PV Inverter Expert

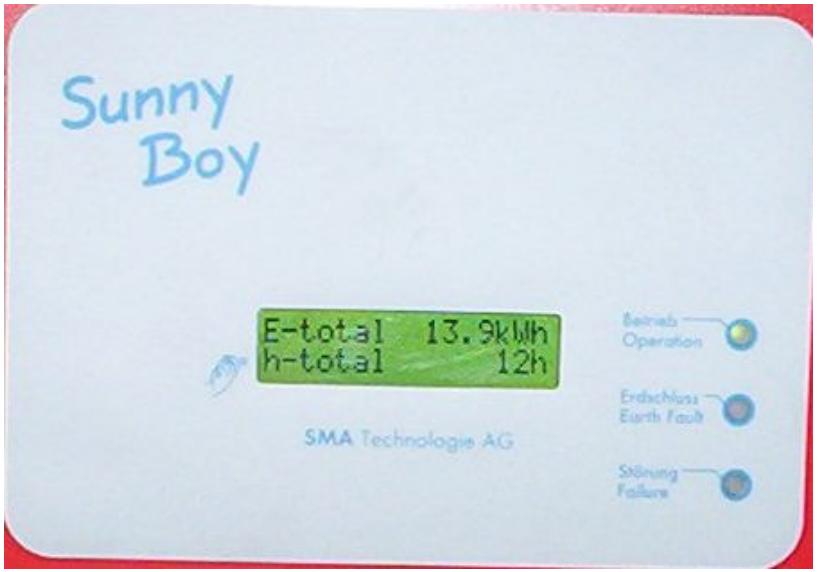
SOFAR 1K~2.8K transformerless
high efficiency single phase inverter

1.Die casting housing, exquisite appearance

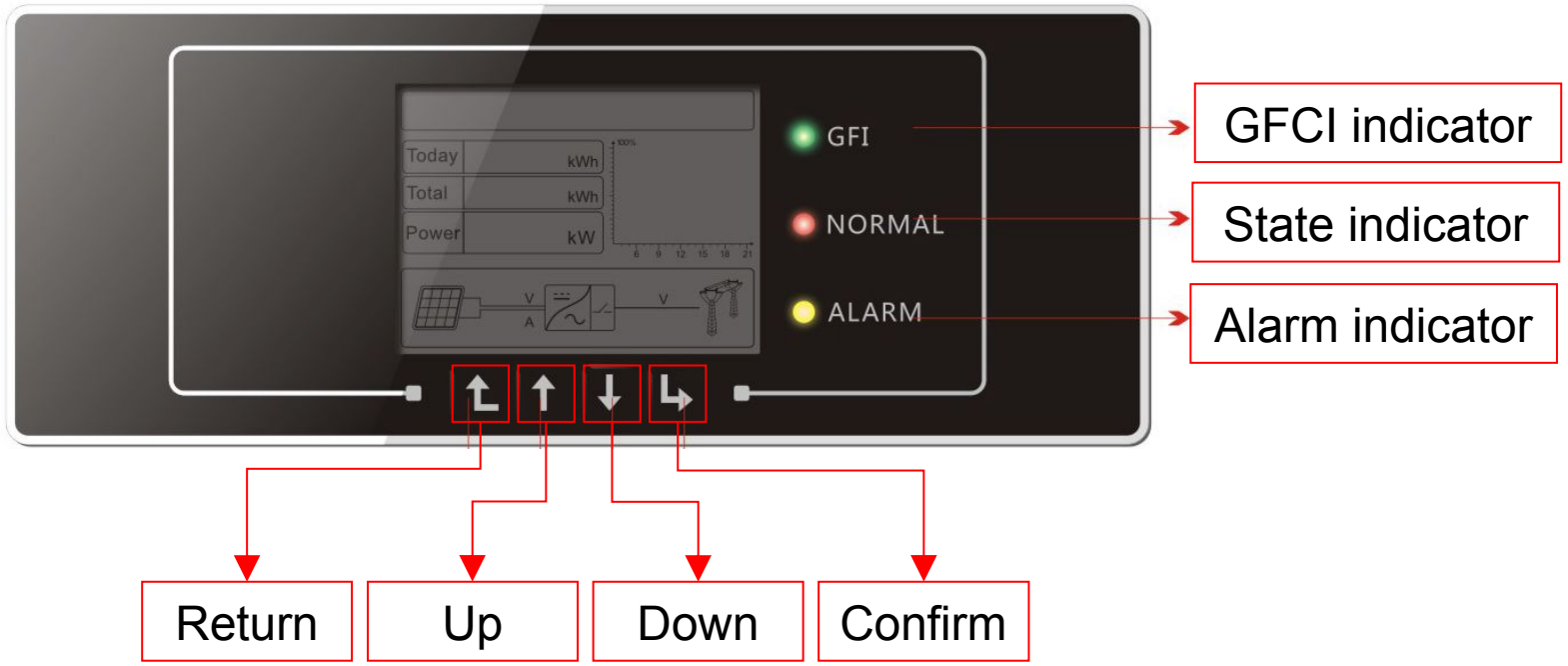
2.Size：40cm×31cm×13cm

3.Weight：12kG, lighter & easier to install

Our compepitors' screens



Our screen



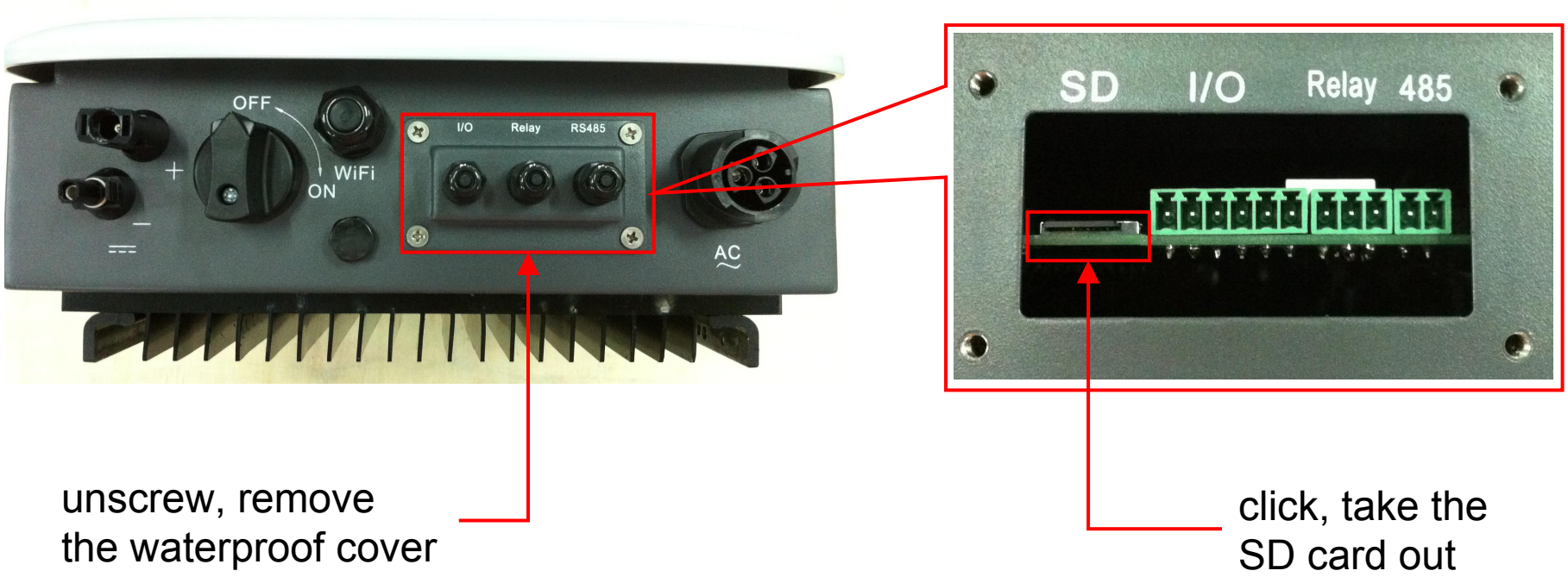
1. bigger screen：4 in LCD, more information shown

2. easy to operate

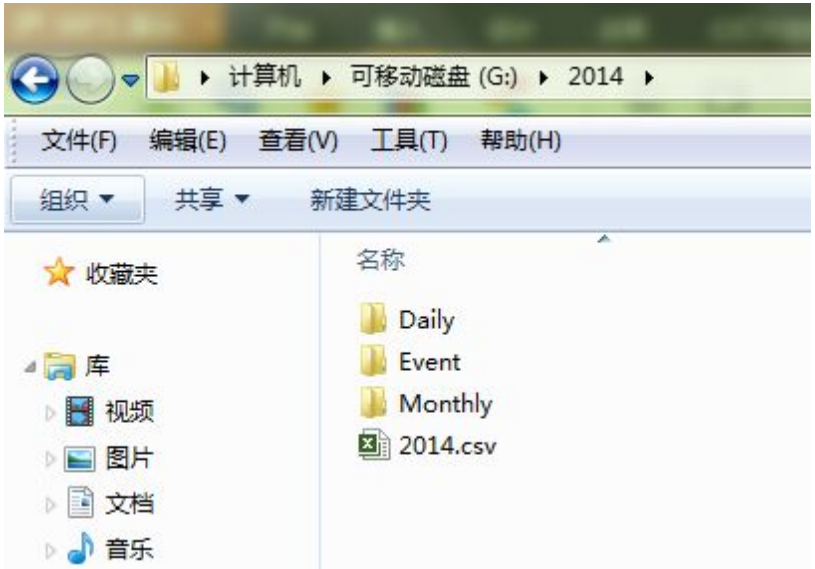
More importantly, there is one
powerful communication board inside

powerful communication board

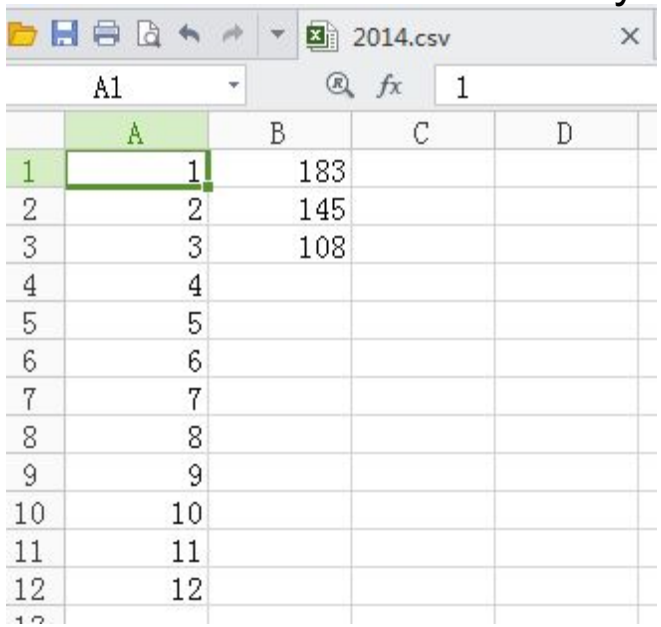
1.Thanks to the RTC chip, all the following is recorded in the SD card for more than 25 years: energy generated per hour/per day/per month/per year, & eventlist



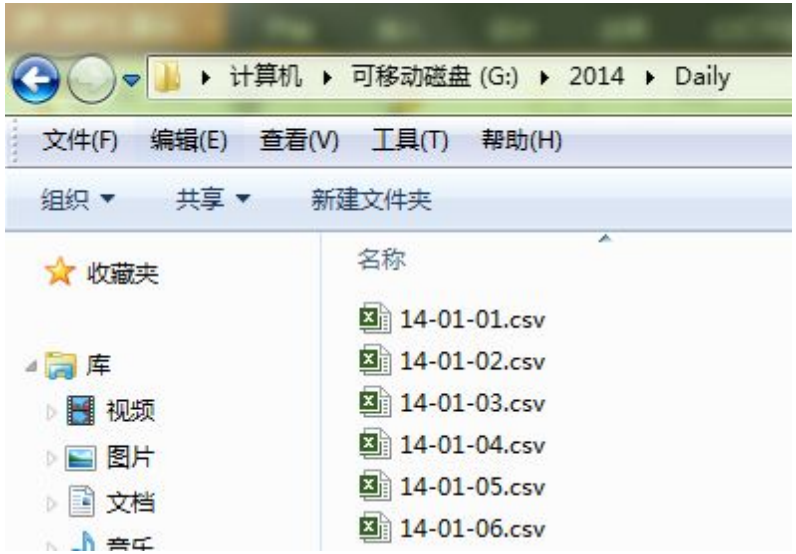
1.open the SD card via a PC, you'll see folders named after year



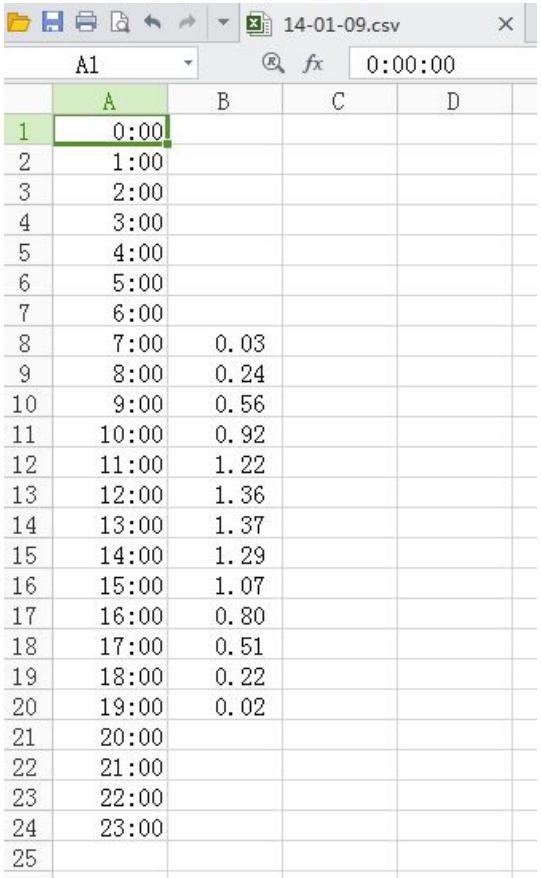
2.open one folder(eg.2014), you'll see “2014.csv” & “Daily/Monthly/Event Folder”



3.open '2014.csv' to see energy generation per month



4.Open “Daily Folder” to see detailed energy generation per day

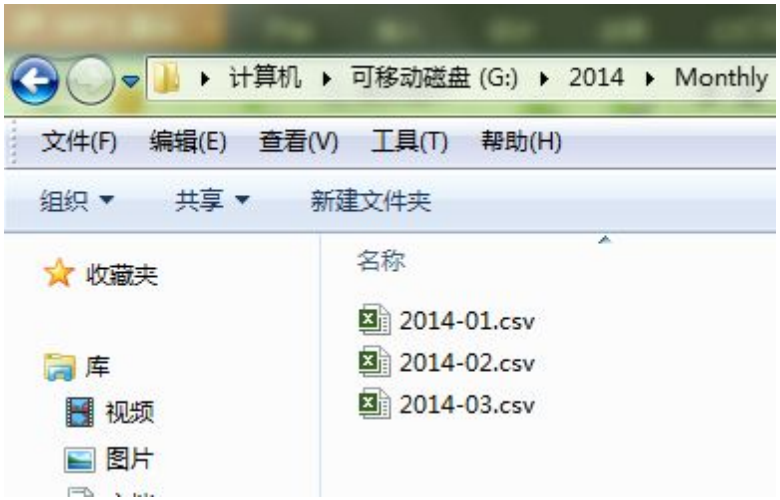


14-01-09.csv

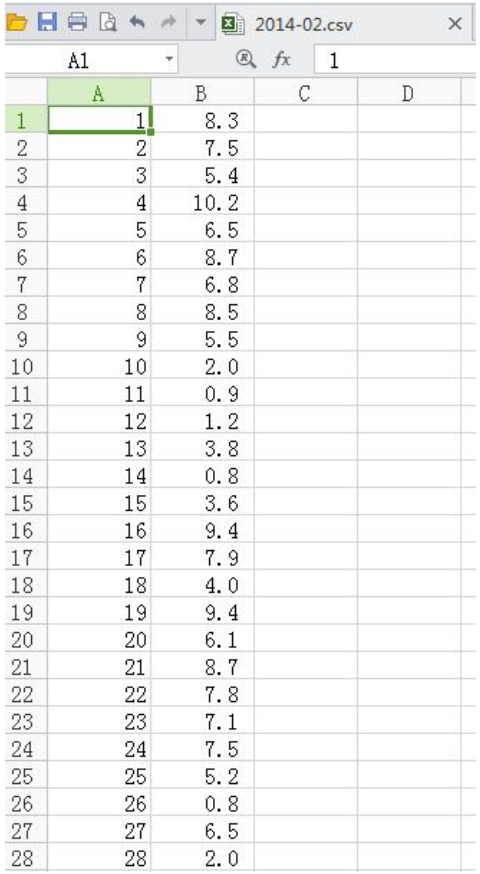
A1 0:00:00

	A	B	C	D
1	0:00			
2	1:00			
3	2:00			
4	3:00			
5	4:00			
6	5:00			
7	6:00			
8	7:00	0.03		
9	8:00	0.24		
10	9:00	0.56		
11	10:00	0.92		
12	11:00	1.22		
13	12:00	1.36		
14	13:00	1.37		
15	14:00	1.29		
16	15:00	1.07		
17	16:00	0.80		
18	17:00	0.51		
19	18:00	0.22		
20	19:00	0.02		
21	20:00			
22	21:00			
23	22:00			
24	23:00			
25				

5.open one file (eg.14-01-09.csv) to see energy yield per hour in that day



6.open “Monthly Folder” to see the detailed energy generation record per month

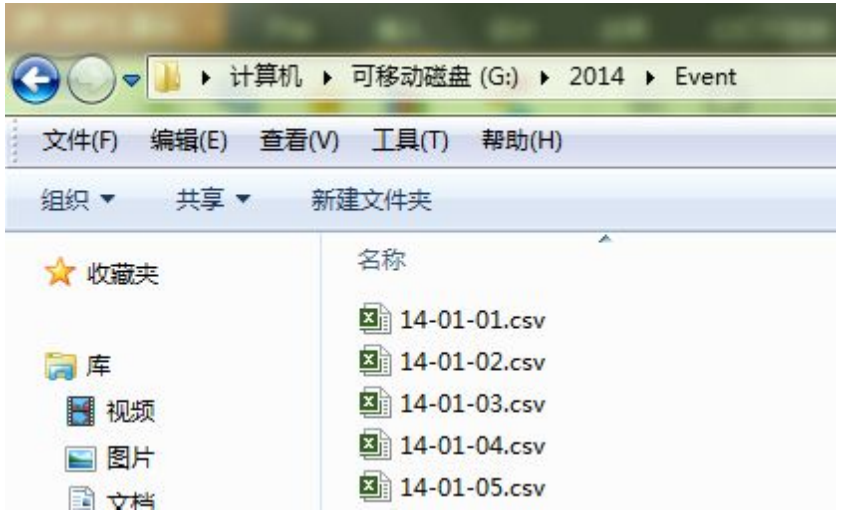


2014-02.csv

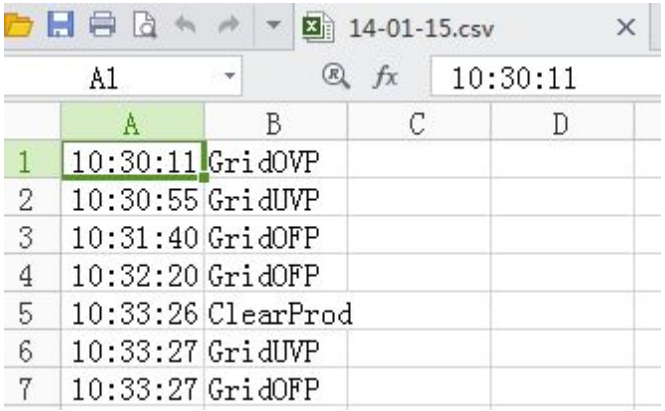
A1 1

	A	B	C	D
1	1	8.3		
2	2	7.5		
3	3	5.4		
4	4	10.2		
5	5	6.5		
6	6	8.7		
7	7	6.8		
8	8	8.5		
9	9	5.5		
10	10	2.0		
11	11	0.9		
12	12	1.2		
13	13	3.8		
14	14	0.8		
15	15	3.6		
16	16	9.4		
17	17	7.9		
18	18	4.0		
19	19	9.4		
20	20	6.1		
21	21	8.7		
22	22	7.8		
23	23	7.1		
24	24	7.5		
25	25	5.2		
26	26	0.8		
27	27	6.5		
28	28	2.0		

7.open one file (eg.2014-02.csv) to see energy yield per day in that month



8.Open “Event Folder” to see the detailed eventlist everyday



9.Open one file (eg.14-01-15.csv) to see the 'event time' & 'event name'*

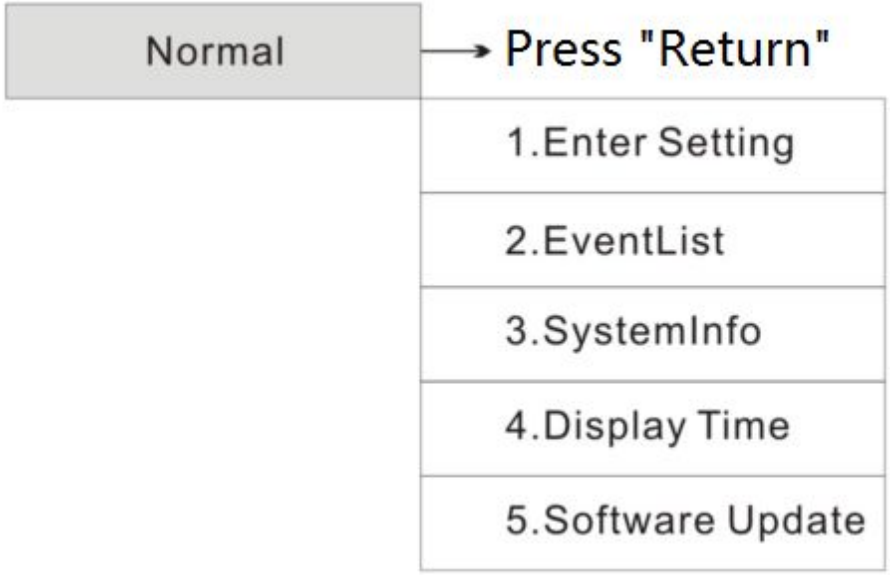
Event Name	Explanation
GridOVP	Grid voltage is too high
GridUVP	Grid voltage is too low
GridOFP	Grid frequency is too high
GridUFP	Grid frequency is too low
• • •	• • •

*Refer to the user manual for the explanation for all 'event name' (here are just some examples)

Powerful communication board

2.software update via the SD card, easy to use

3 simple steps:
(1)Create a folder named "firmware" in the SD card, put (DSPM.hex, DSPS.hex, ARM.hex) into the folder, insert the SD card into the inverter;
(2)Enter "5.Software Update";
(3)Input password(default 0001), inverter will update software automatically!

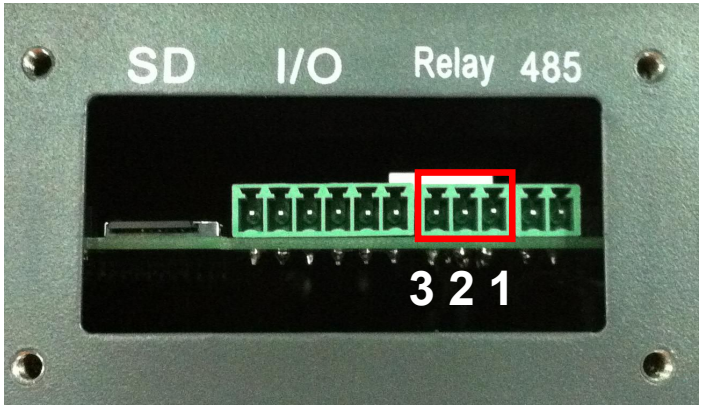


Press "Return" button

Powerful communication board

3.More communication port: I/O, multi-functional relay, RS485, WIFI (optional)

(1)multi-functional relay



the contacts 1-2, 2-3 are in different states ('ON' or 'OFF') according to the different operational states of the inverter.
You can use a lamp/buzzer to indicate the operational states of the inverter.

1.Enter Setting → Press "Confirm"

- 1.Set time
- 2.Clear Produce
- 3.Clear Events
- 4.Remote Control
- 5.Relay Command
- 6.Enable Set Country
- 7.Set Total Energy

5 . Relay Command → Press "Confirm"

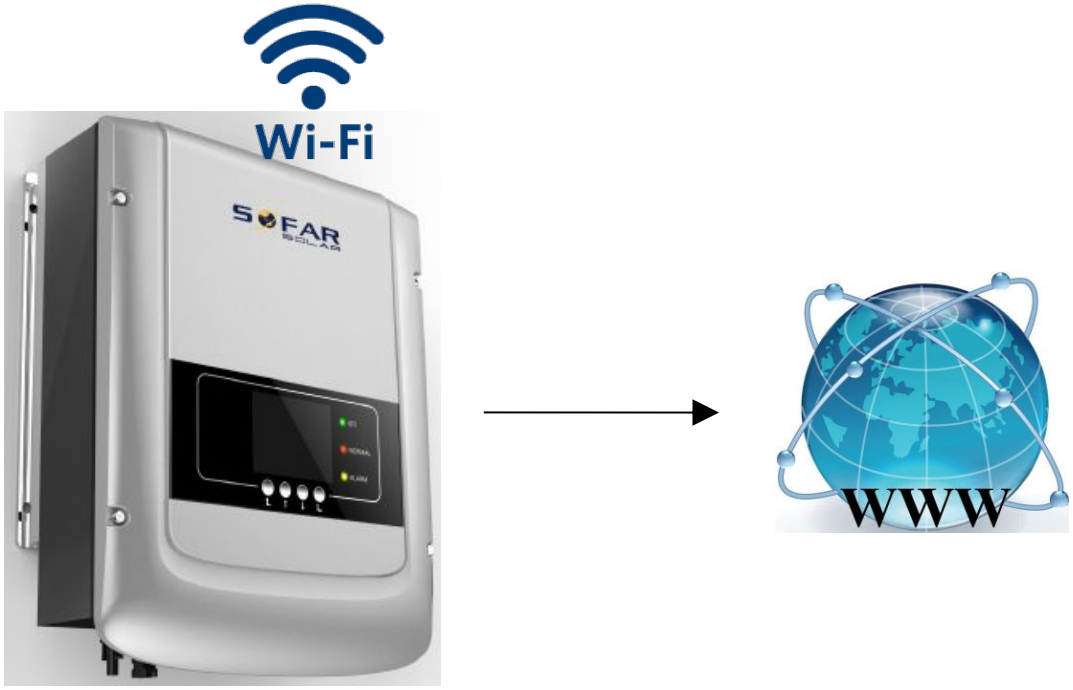
- 1.Production
- 2.Alarm
- 3.Alarm (alarmconfig)
- 4.Relay Disable

(1)multi-functional relay

	Production		Alarm		Alarm（alarmconfig） set a particular event	
Inverter State	Producing electricity	NOT producing electricity	Fault/ Permanent	NOT "Fault/ Permanent"	Event occur/ Fault/ Permanent	NOT "Event occur/ Fault/ Permanent"
Relay State	1-2: ON 2-3: OFF	1-2: OFF 2-3: ON	1-2: ON 2-3: OFF	1-2: OFF 2-3: ON	1-2: ON 2-3: OFF	1-2: OFF 2-3: ON

(2)WIFI: Reliable monitor system

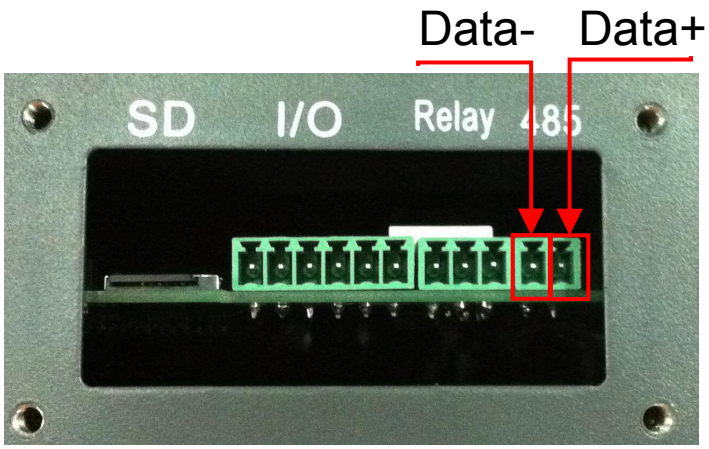
Only one inverter in one PV system

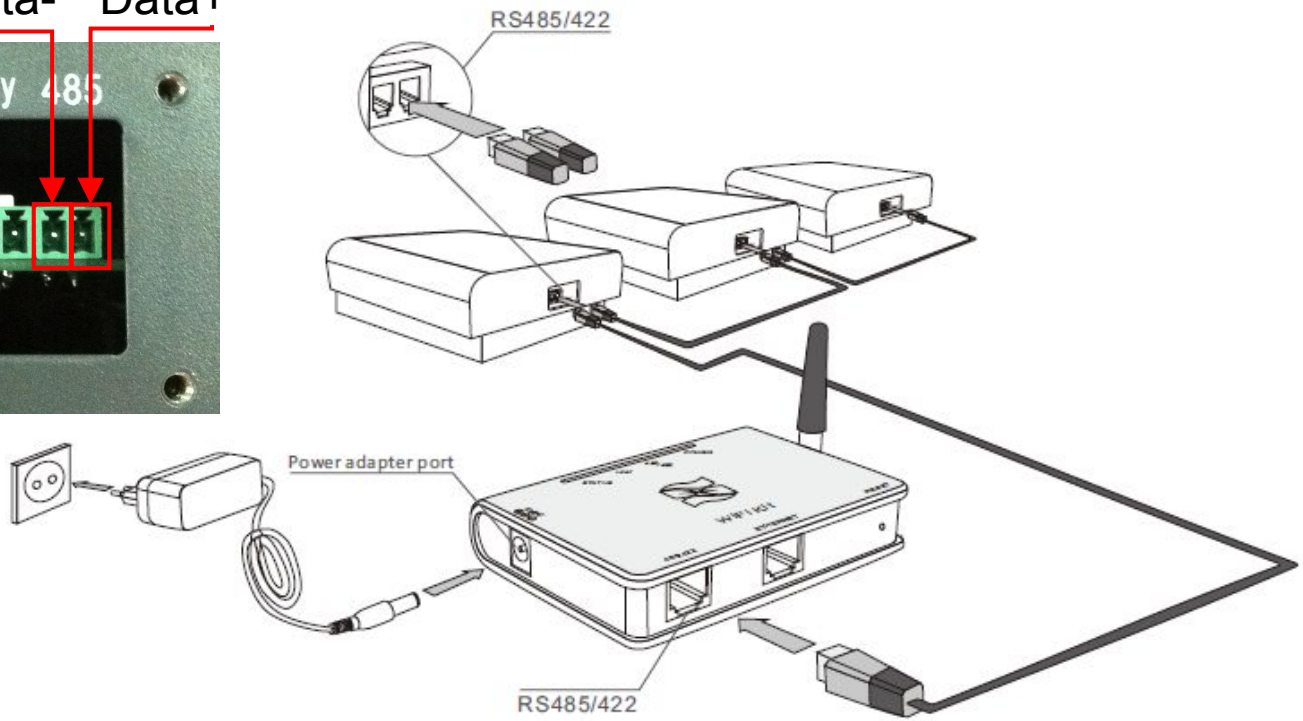


We strongly recommend you choosing the ***WIFI version*** of SOFAR inverters.

(3)RS485: reliable monitor system

Multiple inverters in one PV system





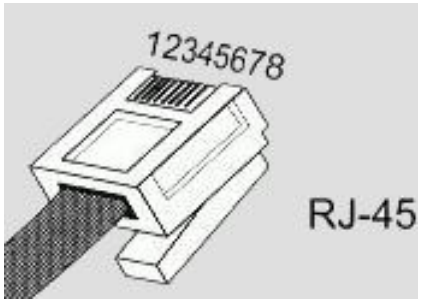
Between the inverters: RS485 is connected in parallel,
data+ is connected to data+; while data- is connected to data-

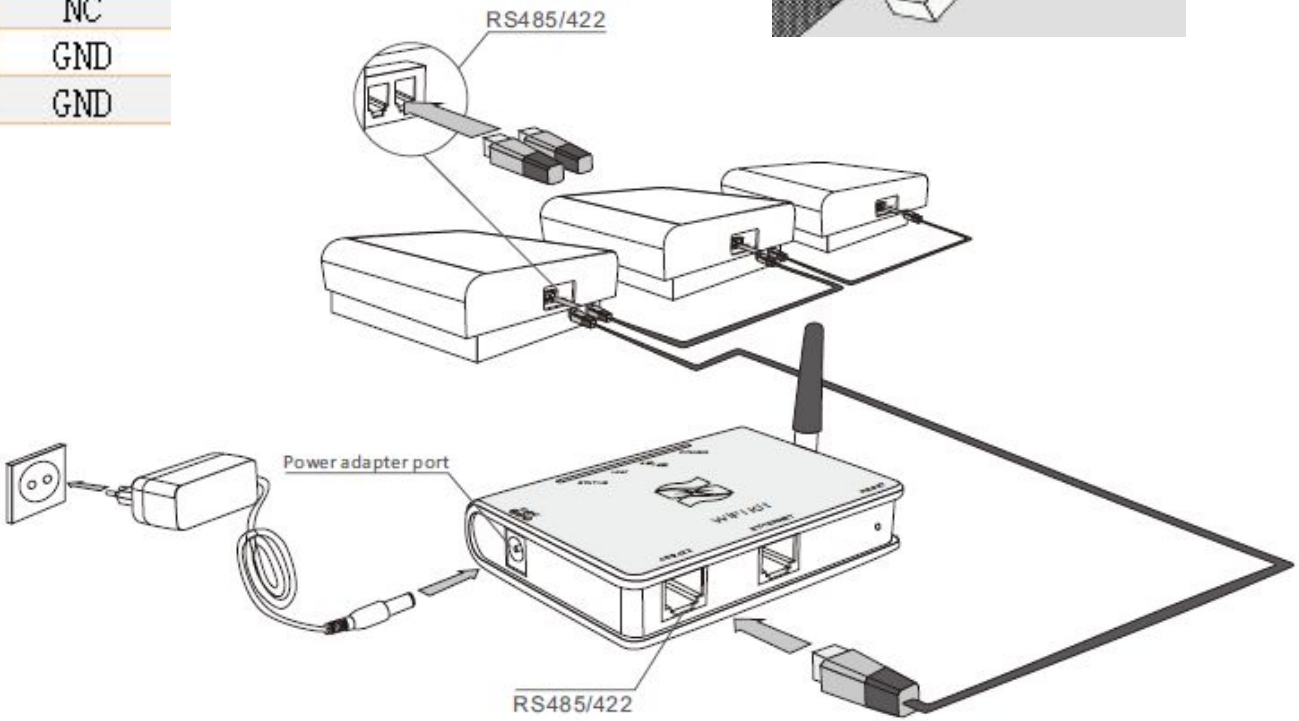
(3)RS485: reliable monitor system

Multiple inverters in one PV system

Pin NO	RS485
1	NC
2	NC
3	NC
4	Data+
5	Data-
6	NC
7	GND
8	GND

RJ-45 connected to the data logger(WIFI kit)

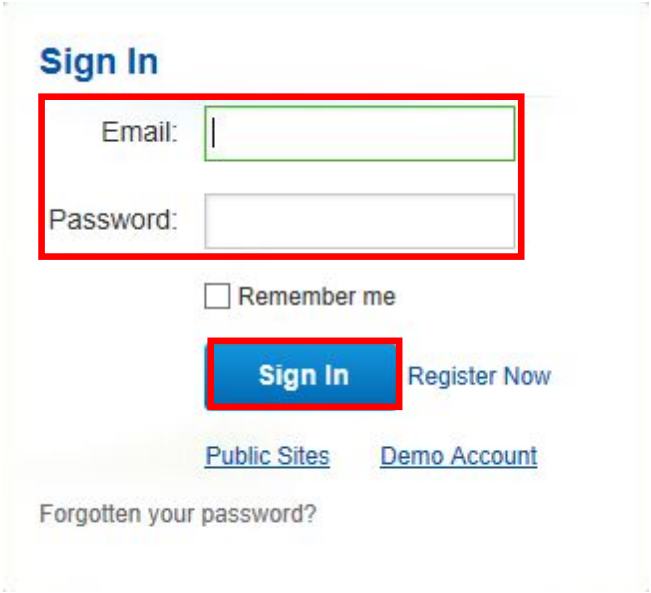




Reliable monitor system

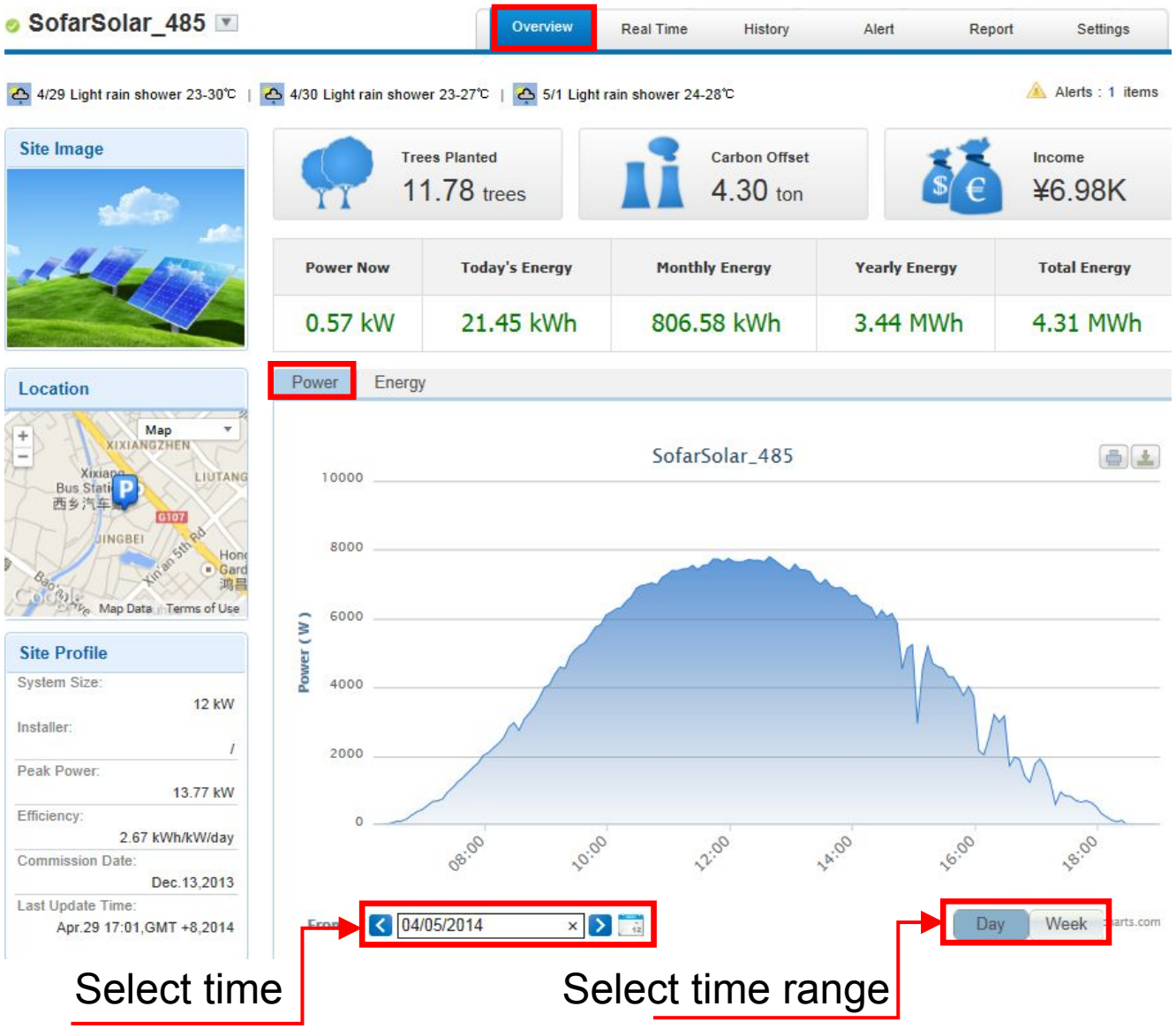
Register & Sign In

①Open a browser, visit
http://www.solarmanpv.com/portal/
'Register Now'

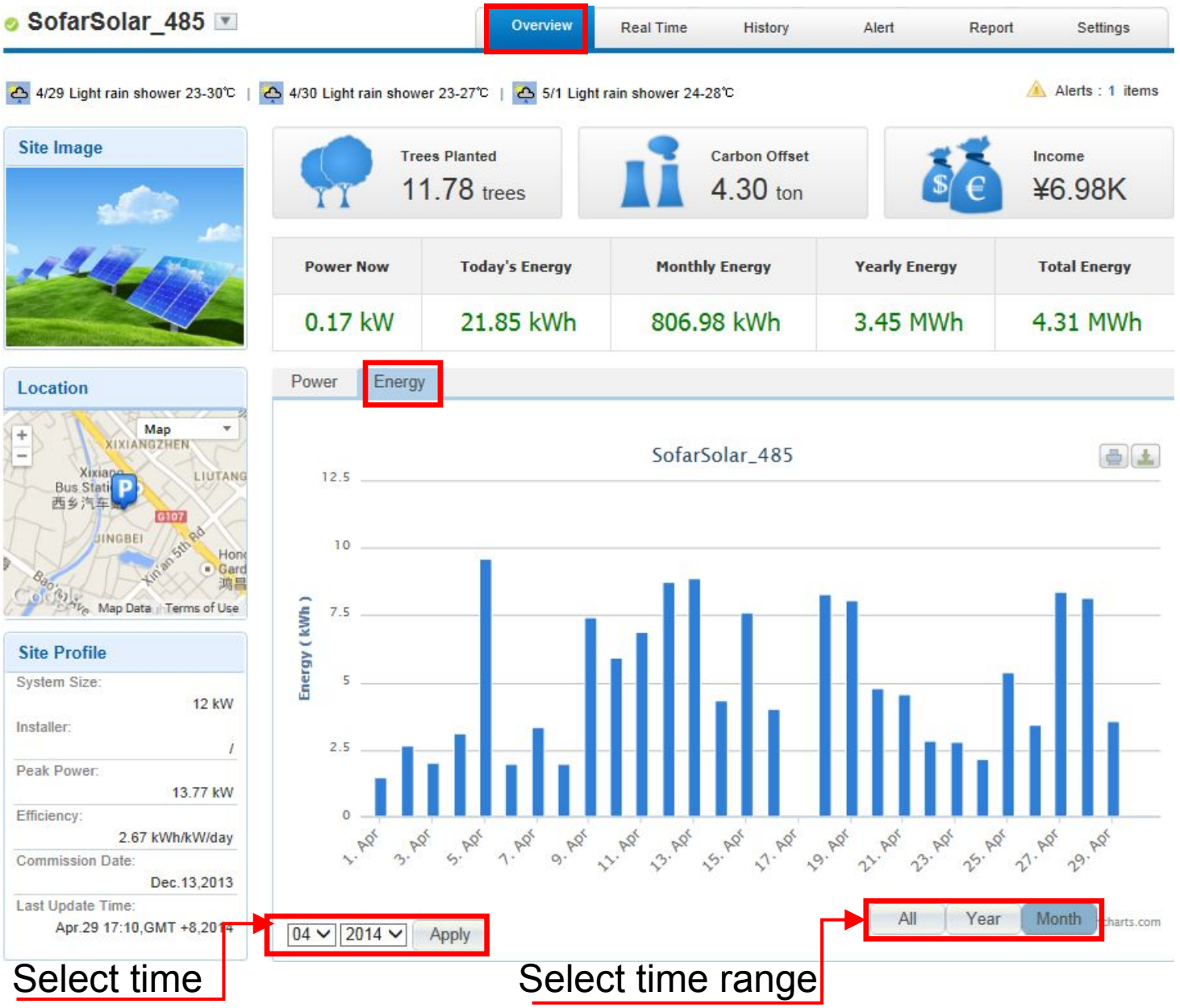


②After registering,
'Sign In'

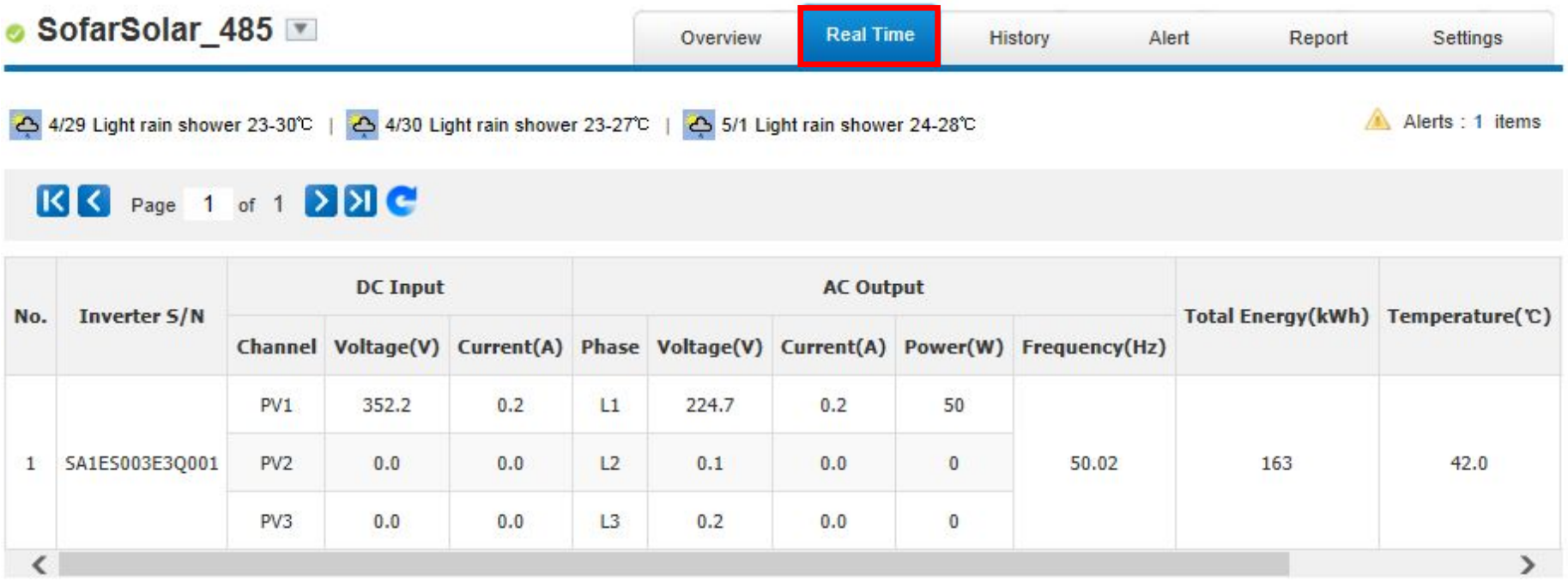
Reliable monitor system



Reliable monitor system



Reliable monitor system

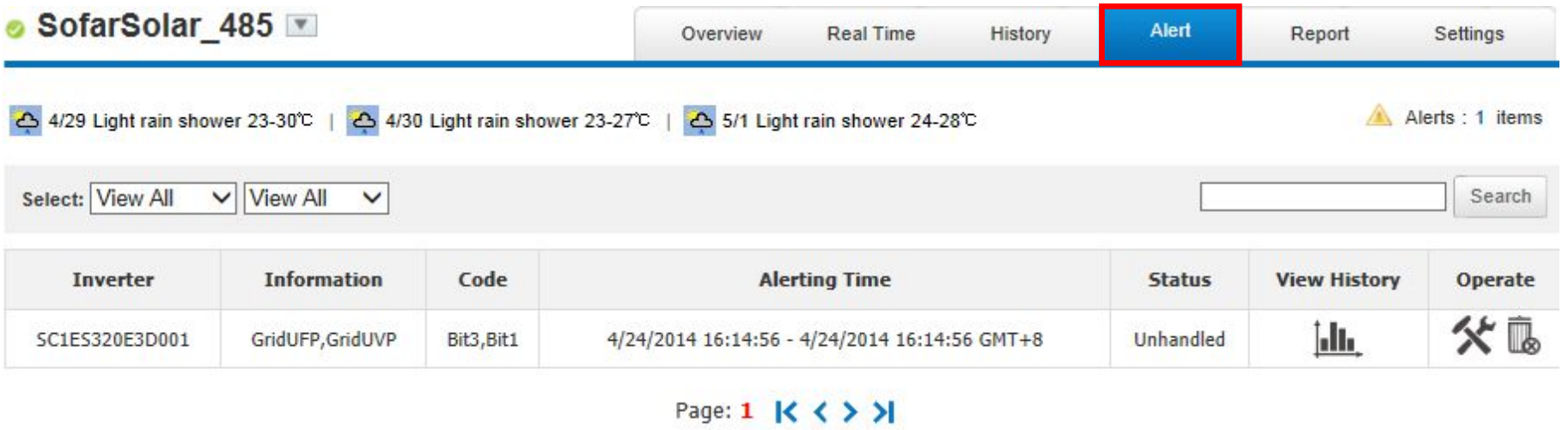


No.	Inverter S/N	DC Input			AC Output					Total Energy(kWh)	Temperature(℃)
		Channel	Voltage(V)	Current(A)	Phase	Voltage(V)	Current(A)	Power(W)	Frequency(Hz)		
1	SA1ES003E3Q001	PV1	352.2	0.2	L1	224.7	0.2	50	50.02	163	42.0
		PV2	0.0	0.0	L2	0.1	0.0	0			
		PV3	0.0	0.0	L3	0.2	0.0	0			

Real time DC/AC voltage/current/power/frequency data

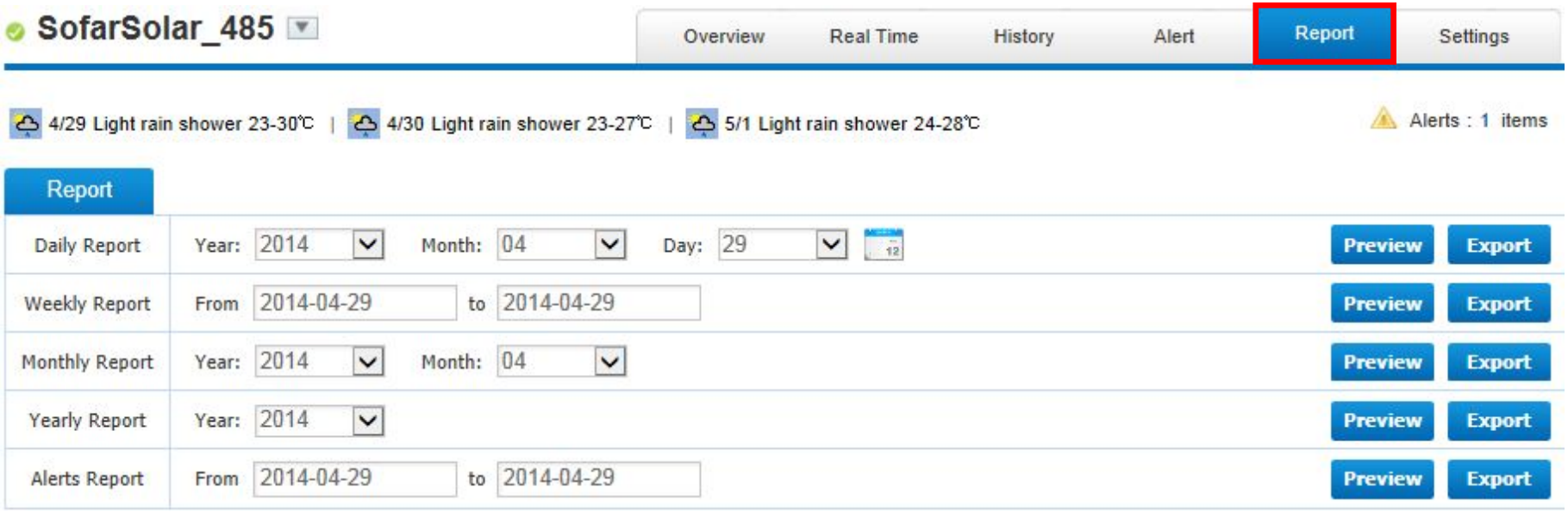
Reliable monitor system

Reliable monitor system



Alert information/altering time/status

Reliable monitor system



Daily/Weekly/Monthly/Yearly Report & Alert Report

Key Performance Comparison

	SOFAR SOFAR 2800TL	SAMIL SolarRiver 3000TL
Max Efficiency	**97.1%**	97.0%
European Efficiency	96.3%	96.3%
Power Factor	$\cos\varphi : \pm 0.8\ adjustable$	$\cos\varphi = 1$

Our supplier: first class in the world

Mos IGBT

Infineon

IR

FAIRCHILD SEMICONDUCTOR

IC

ON Semiconductor

Texas Instruments

Looking forward to becoming your supplier

Fuse

Littelfuse

Capacitor

nichicon

RUBYCON CORPORATION

Current Transducer

LEM

Relay

TE connectivity

OMRON

Diode

Microsemi

MCU

RENESAS